

1921
Box 1



MINISTRY OF TRANSPORT.

REPORT

OF THE

LIGHT RAILWAYS (INVESTIGATION) COMMITTEE.



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LIGHT RAILWAYS (INVESTIGATION) COMMITTEE.

STATEMENT OF COST OF ENQUIRY AND OF PREPARATION OF REPORT.

The cost of the Committee's Enquiry has amounted to £96 14s. 1d., of which £90 18s. 0d. represents the cost of the printing and publication of their Report (and Appendices).

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MINISTRY OF TRANSPORT.

LIGHT RAILWAYS (INVESTIGATION) COMMITTEE.

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Colonel J. W. PRINGLE, C.B., R.E., Chief Inspecting Officer of Railways, Ministry of Transport.

Lieut.-Colonel H. F. STEPHENS, Chairman of Associated Railways, Tonbridge, Kent.

Secretary:

Mr. J. R. DEANS, Ministry of Transport.

Terms of Reference:—

To examine and report upon the future policy and development of Light Railways operation and construction in the United Kingdom, due regard being given to the possibility of utilising roads for Mechanical Transport as an alternative, and as a preliminary to submit full information as to Continental methods, with particular reference to the points mentioned in the annexed list:—

1. Short History of Light Railway Development.
2. Legislation which has contributed to this development. How do restrictions imposed compare with those in this country, and what is the practice with regard to land acquisition and betterment?
3. Financial arrangements which have been made by the State, Local Authorities, land-owners and others to assist development.
4. Description of general organisation.
5. Description of the standard of construction and rolling stock.
6. Standard of maintenance.
7. Standard of operation, with special reference to the absence of restrictions normally in force in the United Kingdom.
8. Financial position and prospects of Light Railway undertakings:—
 - (a) Before the war.
 - (b) At the present time.
9. Basis of rates and charges and relation of these rates to those on the main systems.
10. Typical specimens of the cost of construction, maintenance and operation of various undertakings, having regard to physical characteristics of the districts served:—
 - (a) Before the war.
 - (b) At the present time.
11. Are wages and hours of labour of employees on Light Railways on the same standard as those of main lines?
12. Policy as to future development, due regard being given to the possibility of utilising roads for mechanical transport as an alternative.
13. Schedule of representative train services in the typical localities.
14. Study of French practice of Formules d'Exploitation.
15. Relation of speed to axle-loads and permanent way.
16. Applicability of Continental practice to conditions in the United Kingdom, with special reference to gauge.
17. The desirability of increasing the dimensions of the groove in tramway rails over which Light Railway rolling stock may have to run.

* Mr. T. Cartwright, for private reasons, has been unable to attend the meetings of the Committee and has therefore refrained from appending his signature to the Report.

REPORT.

To the RIGHT HONOURABLE SIR ERIC GEDDES, G.C.B., G.B.E., M.P.,
Minister of Transport.

SIR,

1. In March, 1920, you appointed us as a Committee to examine and report upon the matters defined in the Terms of Reference set forth above. Our investigations are now complete; and, in presenting our Report, we think it desirable and convenient to summarise at once the conclusions at which we have arrived and the recommendations which we submit herein.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

1. We are in complete agreement with the proposal to transfer the powers of the Light Railway Commissioners to the Minister of Transport. (Para. 8.)
2. When an application for a Light Railway Order is rejected on grounds other than non-compliance with the rules of procedure, promoters should have a right of appeal to Parliament on payment of an additional fee, but the notices published and served and the deposits made for the purpose of the application should be held to suffice for the purpose of the appeal. (Para. 8.)
3. (a) Requests for State assistance under Section 17 of the Ministry of Transport Act, 1919, should be considered on their merits and without reference to the conditions on which Treasury advances have been made under the Light Railways Act, 1896.
(b) The Minister of Transport should have power to subscribe to the share capital of, as well as to make a grant or loan to, a light railway company. (Para. 12.)
4. No ampler provision than that contained in Section 11 (f) of the Act of 1896 is necessary for the representation of a Local Authority on the managing body of a light railway company to which it has made an advance. (Para. 13.)
5. We welcome the amendment which has been inserted in the Railways Bill, under which
 - (a) Local Authorities would be empowered to guarantee interest on the capital of light railway companies (Para. 14), and
 - (b) Section 11 (f) of the Act of 1896 would be made to apply to cases in which such guarantees were given. (Para. 13.)
6. The Minister of Transport should have some voice with regard to the design of any light railway which receives assistance in future from public funds; and, where this assistance is rendered in the shape of subscriptions to share capital, the State or the Local Authority so subscribing should possess the ordinary rights of shareholders. (Para. 15.)
7. Where it is proposed to acquire land compulsorily for light railway purposes,
 - (a) The rules for the assessment of compensation which are contained in Clause 2 of the Acquisition of Land (Assessment of Compensation) Act, 1919, should be made to apply. (Para. 19.)
 - (b) Promoters should have power to acquire an easement only, where such would be sufficient for the purposes of the undertaking. (Para. 19.)
 - (c) Subject to such conditions as may be imposed in special cases, promoters should have an unrestricted power to hold or dispose of surplus land. (Para. 19.)

We note with satisfaction that, so far as they relate to the customary allowance of 10 per cent. and to the holding and disposal of surplus land, the foregoing recommendations could be carried into effect under Clause 68 of the Railways Bill.
8. The principle of betterment should be more widely recognised and the application thereof should not necessarily be limited to the owner of the property which is to be compulsorily acquired. (Para. 20.)
9. Future policy should aim at encouraging light railway undertakings by the grant of special facilities by the State and by the larger railway companies. Closer concentration upon this object would tend to obviate or reduce the demand for direct pecuniary assistance from public funds. (Para. 23.)
10. The poor financial results obtained from light railways in Great Britain have been mainly due, not to failure to exercise economy in working expenses, but to the smallness of the earnings in relation to the capital involved. (Para. 26.)
11. The possibility of exempting light railway companies from the payment of Corporation Profits Tax should be seriously considered. (Para. 28.)
12. The revision of the rating of railways should now be seriously considered, with particular reference to the incidence of highway rates. (Para. 29.)
13. (a) Small undertakings desiring to be classified as "light" railways, and main line companies who may desire certain sections of their undertakings to be so classified, should be able to attain this object without difficulty and with the minimum of expense. (Para. 30.)
(b) The relative procedure should be as simple as possible, and payment of the fee of £50 which has usually been demanded should no longer be required. (Para. 30.)

14. (a) Where no connection with a main line is possible, or likely to be required, the choice of the gauge for a new light railway may be determined mainly by considerations of economy in construction and maintenance. Where connection with a main line is proposed or may ultimately be necessary, a narrow gauge should not as a rule be adopted unless the light railway is to have a lead exceeding 20 miles or is to form part of an existing narrow gauge system which could not advantageously be converted to standard gauge. (Para. 33.)
- (b) For narrow gauge lines the dimension of 2 ft. 6 in. should in future be regarded as the standard. (Para. 33.)
15. Light railways should be classified in two groups with particular reference to the maximum speed authorised for each. This maximum should be 25 miles per hour for lines in Group I. and 15 miles per hour—or such lower maximum as may be agreed to by the Minister of Transport—for lines in Group II. (Para. 35.)
16. (a) Weights of rail and axle loads permissible should be determined by reference to a sliding scale to be inserted in Appendix VII. to the Requirements with regard to the Opening of Railways, due regard being had to speed, alignment and traffic conditions. (Paras. 37 and 38.)
- (b) The power to sanction departures from the sliding scale in special cases should be reserved to the Minister of Transport. (Para. 38.)
17. (a) Complete schedules of up-to-date Model Clauses for insertion in draft Light Railway Orders should be printed and made available for the use of promoters, subject to the proviso that the schedule of Requirements appended to each Order should be left open for settlement on the merits of each case. (Para. 39.)
- (b) The Requirements usually specified in this Schedule with regard to signalling, points and cognate matters could not safely be relaxed in favour of the "higher speed" lines included in Group I.; but on the "lower speed" lines included in Group II. no signals should, as a rule, be required. (Para. 40.)
18. (a) Fencing should be provided only where local conditions, including the speed of trains, render it absolutely essential; and the protection of level crossings by gates and gatekeepers should be similarly limited. (Para. 43.)
- We have indicated in the body of our Report the alternative protective measures which should suffice. (Para. 43.)
- (b) In any case where additional protection may become necessary at a crossing after a line has been opened for traffic the appropriate Government Department should have power at any time to require the Company to provide such additional protection. (Para. 43.)
19. (a) Where a road and light railway intersect, a bridge should not be provided except where no economy could be effected by the provision of a level crossing, or where other conditions render a bridge essential. (Para. 44.)
- (b) Undue weight should not be allowed to the arguments adduced by local authorities in pressing for the provision of bridges in lieu of level crossings. (Para. 44.)
20. (a) Station accommodation for passenger traffic should be more strictly limited, and should take the form of a simple shelter except at important stations. Halts should suffice at wayside places; and, wherever it is practicable, tickets, fares and "stamped" parcels traffic should be dealt with by the train guards. (Para. 45.)
- (b) The station facilities provided for dealing with freight traffic should be more closely adjusted to the requirements. (Para. 45.)
21. Where a new light railway is proposed the question of dispensing with platforms should be considered, especially in the case of a narrow gauge line, where the use of second-hand main line rolling stock is necessarily precluded. (Para. 46.)
22. If, on the security of Public Guarantees, the capital of new light railways were obtainable at par, expenditure on construction would be reduced and many undertakings which could not otherwise pay a dividend on their ordinary shares would be able to do so. (Para. 48.)
23. (a) The quantities of rolling stock initially provided for light railways should be more closely adjusted to the traffic requirements. (Para. 49.)
- (b) A determined effort should be made to secure economy in respect of rolling stock by a standardisation of types and parts. (Para. 49.)
24. Economy may be effected, and traffic increased, by the use of steam or internal combustion rail motor cars for passenger services. (Para. 50.)
25. Where two classes of passenger accommodation are provided an unduly high proportion of the total is sometimes allocated to first-class passengers. In many cases the provision of two classes is unnecessary. (Para. 51.)
26. Advantage would result from a wider use of railway vehicles on tramway tracks. Provided that suitable regulations are applied and that local conditions render it practicable, we see no reason why tracks on a public road or street should not be used for this purpose. (Para. 52.)
27. Greater economy is desirable in methods of maintenance and operation; and existing facilities for the handling of traffic should be improved, e.g., by the extension of sidings and other working facilities at stations and exchange points. In this

- connection the co-operation of main line companies would be of much assistance and would also benefit the larger companies themselves. Co-operation on the part of the Ministry of Transport, with regard to methods of construction, maintenance and operation, would also have valuable results, and the readiness of the Ministry to investigate and assist in such cases should be made more widely known. (Para. 58.)
28. In present circumstances the *Formules d'Exploitation* which have been adopted in France would be inapplicable in Great Britain. (Para. 59.)
 29. (a) We note that the Railways Bill provides for the absorption of certain existing light railways into "amalgamated companies." We suggest that, after the Bill has been passed, the Minister should consider the propriety of encouraging the separation from the main lines of undertakings which are really "light railways." (Para. 61.)
 - (b) If Clause 72 of the Railways Bill becomes law, an application by a railway company for an amending order empowering it to acquire a light railway should be granted by the Minister only if he is satisfied that the light railway concerned has changed in character and become competitive; and the order should provide for fair terms of purchase, to be settled in case of difference by arbitration.
 30. The principle of voluntary "grouping" of light railway undertakings for purposes of management should be extended. Even where this is impracticable, there should be a closer co-operation in matters affecting the design and repair of rolling stock and permanent way material. Where an undertaking is so located that it could not benefit from a centralisation of repair work it should at least endeavour to realise economies by the co-operative purchase of materials and stores. (Para. 62.)
 31. Light railways should be emancipated from the influence of the existing standards by which the cost of labour is determined. This cost should be far more closely related to the quality and quantity of the services rendered and to the revenue derivable therefrom. (Para. 64.)
 32. Claims for compensation in respect of loss suffered by light railway companies by reason of the high cost of labour (and said to be due to the action of the Government) should be seriously entertained. (Para. 65.)
 33. Rates and fares should be determined in each case by reference to the economic circumstances of the particular line concerned; and, in the apportionment of through rates and fares also, each case should be dealt with on its merits. In this connection the wide difference in the economic positions of light and main line railways respectively should be a basis of consideration, and the general principle that revenue should be sufficient to yield a reasonable return on capital should be borne in mind. In particular, light railway charges should not be based upon any definite *ratio* to main line charges. (Para. 67.)
 34. Light railway companies in Great Britain should be admitted as members of the Clearing House and possess all the privileges of membership except the power of voting. (Para. 68.)
 35. Light railway companies should be represented on all official panels or committees which deal with matters likely to affect such undertakings. (Para. 69.)
 36. Through rates are advantageous to the public and their institution brings the light railways into closer contact with the main lines and thereby tends to facilitate the working and exchange of traffic. They are therefore generally desirable, but in particular cases the decision with regard to the adoption of through rates must depend upon local circumstances. (Para. 70.)
 37. In assessing the comparative economic values of road motor transport and light railway services, individual cases must be considered on their merits. Any attempt to direct future development in accordance with a general verdict favourable to either form of transport would be highly misleading. It must be frankly recognised that a road motor service may be a desirable alternative to a light railway, and no such railway should be authorised where it is clear that a road motor service would be equally suitable and is likely to be established within a reasonable time. Future policy should aim at a solution of the problem by way of co-operation and co-ordination, rather than of competition, between light railway enterprise and road motor transport respectively. (Para. 82.)
 38. A new conception of the character and functions of a light railway is necessary, and it should be recognised by all concerned that light railways differ essentially from main lines and must depend for success upon the adoption of different standards of construction and operation. In this connection a lower standard of speed is a first essential. (Para. 83.)

We have held 13 meetings and have considered a great number of reports and memoranda on the various subjects covered by the terms of the reference, including the Reports of other Committees which have dealt with the several aspects of the railway transport problem in the past; and we have obtained much useful information from documents contained in those papers of the Ministry of Reconstruction and of the Board of Trade which now form part of the records of the Ministry of Transport. During the course of the enquiry we have received the ready assistance of the Light Railway Commissioners and of all those officers of your Ministry from whom we had occasion to seek co-operation and advice.

In order to secure detailed and up-to-date information respecting the construction, maintenance, working and financial position of existing light railways in the United Kingdom we have issued a questionnaire to 53 typical undertakings in Great Britain and Ireland, and the statements of fact supplied and the practical suggestions offered in response to our request have been of the greatest value. Considerations of economy have prevented us from undertaking any actual inspection of the concerns in question but, although such local investigation would probably have yielded more detailed results, we are satisfied that, subject to this limitation, the field of enquiry has been suitably explored in the written statements furnished by the companies concerned.

2. We have been precluded by similar considerations of economy from deputing any members of the Committee to visit and report upon light railways on the Continent; but, from information drawn from the official reports of the Société Nationale des Chemins de Fer Vicinaux in Belgium, and from numerous other sources, we have compiled a comprehensive statement concerning the development and practice of light railways in European countries and in India. This document has been embodied in Appendix K to our Report.* The bulk of the information contained in that Appendix necessarily refers to the period antecedent to the War and the survey is not, therefore, in all respects up-to-date. It may be assumed, however, that during the War the regular development of the majority of Continental light railways was virtually suspended and their operation considerably interfered with, that these organisations are still subject to the incidence of the abnormal conditions created by the War and that, like similar agencies in the United Kingdom, they are confronted by new and difficult problems. Some time must necessarily elapse before a solution of these problems can be found and tested, and in these circumstances we think that any advantage to be derived from a present study of the light railway situation in Continental Europe must be largely discounted.

3. In the absence of any precise definition of the term "light railway," we have deemed it advisable not to accept any narrow classification for the purposes of our enquiry. Differences of type and character abound, and any attempt to circumscribe our investigation in obedience to particular legal or technical distinctions would have detracted from its value. For this reason we have not confined our attention to those undertakings which have been sanctioned by specific "light railway" legislation; we have taken cognisance also of many lines which have had a different origin but are nevertheless "light railways" in the ordinarily accepted sense of the term.

4. For the sake of compactness and simplicity we have arranged our Report under four main heads, which, with the various sub-heads thereunder, cover the subjects enumerated in the terms of the reference to the Committee. The conclusions and recommendations set forth in the Report are based, for the most part, upon information embodied in a series of Memoranda prepared during the course of our examination. These Memoranda consist, in the main, of statements of fact; and, as they form in the aggregate a somewhat bulky volume, we have thought it desirable not to embody them in our Report but to present them in the form of Appendices. Wherever it has been necessary to draw attention in the Report to any of the more salient statements contained in the Appendices, suitable references have been inserted in the former.

5. We desire also to make it clear that, having regard to the changes effected by the Government of Ireland Act, 1920, the conclusions and recommendations of the Committee are to be construed as applying to light railway development in Great Britain alone.

SECTION I.

HISTORY OF LIGHT RAILWAY DEVELOPMENT AND LEGISLATION.—FINANCIAL ASSISTANCE FROM PUBLIC FUNDS AND OTHER SOURCES.—ECONOMIC POSITION AND PROSPECTS.

6. In Appendix A to our Report we submit a brief history of light railway development in the United Kingdom. In this epitome we have embodied a review of the various enactments by which the Legislature has sought to facilitate the construction and working of light railways, with special reference to the financial assistance which may be rendered to these undertakings by Local Authorities and by the State. We have discussed in the same document the several questions affecting the acquisition of land for light railway purposes and have made particular allusion to the principle of "betterment."

7. So far as Great Britain is concerned, we share the general opinion that the slow and unsystematic progress of light railway enterprise prior to the year 1896 is attributable, in part, to the limitations imposed, or left existing, by the Railway Construction Facilities Act of 1864 and by subsequent enactments. We recognise, also, that the Light Railways Act of 1896, with the modifications effected by the amending Act of 1912, represented a substantial advance on previous legislation. By substituting procedure by Departmental Order for procedure by Act of Parliament, by the wider freedom which they bestowed upon Local Authorities, by their provisions with regard to the acquisition of land, and by the powers which they conferred upon the Treasury to contribute to the capital of light railway undertakings they were calculated to remove some of the principal difficulties hitherto experienced. Notwithstanding this, however, the evidence before us, including that contained in the Annual Reports of the Light Railway Commissioners, clearly indicates that in practice the Acts of 1896 and 1912 have not served to foster the development of light railways to an extent comparable with that attained in Continental countries.

* The Appendices are published separately—see note at foot of Title-page.

Applications for, and Consideration of, Light Railway Orders.

8. With regard to the procedure to be observed in the making of applications for Light Railway Orders and in the consideration of those applications and of the Orders themselves, we are satisfied that the establishment of the Light Railway Commission made for simplicity and that in the administration of the Acts of 1896 and 1912 the Commissioners have succeeded in affording to promoters and other interested parties every assistance which it was in their power to render. At the same time there can be no doubt that the statutory provisions which preclude them from carrying any Order beyond the provisional stage and require them to submit every such Order for departmental confirmation have rendered the procedure as a whole more cumbersome and costly than it need be. We are aware that, if legislative effect is given to the proposals embodied in Part V. of the Railways Bill which is now before the House of Commons, the powers of the Commissioners will be transferred to the Minister and the dual procedure at present in force will cease.

We desire to place on record our complete agreement with the proposal to transfer the powers of the Light Railway Commissioners to the Minister of Transport.

At the same time we think it equitable that, in any case where an application for an Order is refused and such refusal is not due to a failure to comply with the rules of procedure, promoters should have an opportunity of appealing to Parliament without being called upon to incur the expense of issuing new notices and advertisements, or of making fresh deposits. It would no doubt be desirable to discourage the submission of appeals based upon trivial grounds, and this might be effected by requiring the appellants to pay a suitable additional fee.

We recommend therefore that, in the event of the Minister refusing to grant an application for an Order on grounds other than non-compliance with the rules of procedure, he should, if requested by the promoters and on payment by them of such additional fee as might be prescribed, send to the Lord Chairman and Chairman of Ways and Means a copy of the draft Order, together with a report stating the grounds on which the application was refused, and that if the said Chairman should consent that the proposals might be dealt with by Private Bill the promoters should be entitled to make application for a Bill, and the notices published and served and the deposits made for the purpose of the application for the Order should, subject to Standing Orders, be held to have been published, served and made for the purpose of the Bill.

The provision which we have here proposed would be additional to that contained in Section 1 of the Light Railways Act, 1912, and would not affect the power of the Minister to submit proposals to Parliament in a confirming Bill.

It should, perhaps, be added that the procedure which we have suggested would be somewhat analogous to that prescribed in Section 29 (3) of the Ministry of Transport Act, 1919, and in Section 2 of the Private Legislation Procedure (Scotland) Act, 1899.

Assistance granted by the State and by Local Authorities.

9. Allusion has been made to the comparative inadequacy of the Acts of 1896 and 1912. It is significant that, of the total sum of £1,000,000 made available by the former for the purpose of advances by the Treasury to light railway companies, only about one-fifth had been disbursed up to the end of the year 1918 and that, of this limited amount, the greater part had been advanced during the earlier part of the period following the enactment of 1896. The Light Railway Commissioners attribute this in great measure to the fact that the Acts do not empower the Treasury to advance more than a proportion of the total capital required and that, in recent years, the requisite balance in the shape of private capital has been seldom forthcoming. A Treasury loan under Section 4 of the Act may be equivalent to one-fourth of the total capital required, whilst a "special advance" under Section 5 may amount to as much as one-half of the total sum required. Advances of either kind are subject, however, to certain conditions specified in the Acts and also to such other conditions as the Treasury may direct; and there is no doubt that the failure of promoters to make a more effective demand upon the financial assistance offered by the State has been due in part, not to any sense of indifference to the value of Treasury advances, but to their inability in many instances to comply with the conditions under which they have been made. We think, however, that an even more potent reason for this inability to take advantage of Treasury support is to be found in the fact that a contribution made in the form of a loan under Section 4 of the Act of 1896 ranks before the share capital of the undertaking concerned. This has tended to place the holder of ordinary shares at a distinct disadvantage; and it is the ordinary capital—not the debentures—of these undertakings for which it is difficult to find subscribers. On the Continent, on the other hand, the contributions made by public authorities are frequently on an equal footing with the capital subscribed by ordinary private investors; and we believe that, in some instances, the former have even accepted deferred shares in return for their contributions. The encouragement thus offered to the ordinary private investor is obvious.

10. We note that, if the proposals contained in Part V. of the Railways Bill become law, the functions of the Treasury as defined in the Act of 1896 will cease and that the power to lend or grant money for light railway purposes will be exercisable by the Minister of Transport who may make advances upon such terms and conditions as he thinks fit; and we are agreed as to the desirability of substituting for the powers now possessed by the Treasury under Sections 4, 5 and 6 of the Act of 1896 the full discretion exercisable by the Minister, with the consent of the Treasury, under Section 17 of the Ministry of Transport Act, 1919.

11. At the same time we are of opinion that, whatever the decision of Parliament respecting the relative Clauses in the Railways Bill may be, certain changes in practice are now desirable.

We think that certain of the conditions under which State aid has hitherto been granted should be relaxed. The power of the Treasury to grant a loan to a light railway company under Section 4 of the Act of 1896 has been conditional upon a Local Authority having made or agreed to make an advance to the company, and the amount of the loan might not exceed the amount of the advance by the Local Authority. Desirable as it is that Local Authorities should be encouraged to co-operate in the financing of promising light railway projects, it is possible that in a particular case the authority concerned might not be in a position to render any considerable assistance and, under present conditions, their inability to do so might conceivably have the effect of negating a sound and desirable scheme.

Further, a special grant under Section 5 of the same Act has been subject, *inter alia*, to the condition that a railway company "working railways open for traffic" should have agreed to work the light railway in respect of which the Treasury grant was given. This condition was calculated to operate adversely to light railway companies. They were compelled, in effect, to negotiate with main line companies possessing a greater power of bargaining and, in consequence, were not infrequently obliged to accept unduly onerous terms.

12. We are aware that, under Section 17 of the Ministry of Transport Act, 1919, the Minister may make an advance to a light railway company upon such terms and conditions as he thinks fit and need not, therefore, make any such contribution conditional either upon an advance by a Local Authority or upon agreement by an existing railway company to work the proposed light railway.

We are strongly of opinion that such conditions should not be allowed to militate against the adoption of a promising scheme but that individual cases should be considered on their merits and without reference to the practice prescribed by Sections 4 and 5 of the Act of 1896. For this reason we attach much importance to the possession and free exercise by the Minister of the wide discretionary power to which we have referred.

We think it desirable, also, that the Minister of Transport should be given power to make an advance to a light railway company as part of the share capital of the undertaking, and not only by way of grant and/or by way of loan as provided in Section 17 (1) of the Ministry of Transport Act, 1919.

13. The power of Local Authorities to make advances to light railway companies has not been exercised to the extent anticipated. This may be due, in part, to a lack of assurance that money thus advanced would be expended to the best advantage by promoters or by the private investors controlling the undertakings concerned, and the Light Railway Commissioners are of opinion that greater confidence would be induced if there were some guarantee that the expenditure of monies advanced by Local Authorities would be subject to public control and supervision.

By the Act of 1896 Local Councils themselves have already been afforded an opportunity of obtaining a share in the control of the light railway undertakings in which they are financially interested. Under Section 11 (f) of the Act an Order thereunder may provide that a Local Authority which advances any money to the company concerned may be represented on the managing body of the undertaking; but in practice *the contributing councils have not displayed any general desire to secure such representation, and we do not think that any ampler provision in this connection is, at present, necessary.* In the next paragraph of our Report we recommend that, in future, Local Authorities should be empowered to guarantee the interest on the capital of light railway companies; and, *if this recommendation be adopted, Section 11 (f) of the Act of 1896 should then, we think, be amended so as to render it applicable to cases in which such guarantees were given.* The suggestion that Local Councils might be empowered to guarantee interest on loans or share capital obtained from other sources has been made upon the ground that they would be more willing to accept the risk of incurring moderate annual charges than to advance any considerable capital sums, and we welcome the amendment to this effect which has been inserted in the Railways Bill now before Parliament.

In Ireland interest on the whole or part of the capital of a light railway may be guaranteed by the Local Authorities concerned, and the arrangement has there been frequently applied. In practice it is said to have thrown a heavy burden upon some of the areas concerned; and in the case of the lines more recently opened these local guarantees have been very difficult to obtain, with the result that these later lines have usually had to be assisted by Treasury grants alone. We attribute this, however, to the limitation of local resources in many of the rural areas of Ireland, and we do not apprehend that similar difficulties would be likely to result from the adoption of a system of local guarantees in Great Britain.

14. We recommend, therefore, that, *subject to suitable safeguards, the Council of any county, borough or district in Great Britain should be empowered to guarantee the interest on any loan or on the share capital or on any part of the share capital of a light railway company.*

Attention is drawn, in this connection, to a Minute addressed to the Secretary, Ministry of Transport, on the 9th June, 1921, by the Chairman of this Committee. A relative amendment to the Railways Bill was then before the House of Commons, and the Minute, which embodied the views of the Committee in support of the amendment, was intended to serve as an interim recommendation. An extract from this Minute and a copy of the relative amendment are set forth hereunder.

Extract from Minute, dated 9th June, 1921.

At a meeting of the Light Railways (Investigation) Committee, held on the 7th instant, one of the members . . . explained that, in the past, light railways had suffered from the unwillingness of Local Authorities to borrow money in order to subscribe to the capital

of undertakings in their respective areas, but that they would probably be less reluctant to promise to guarantee *interest* on the capital, or on portions of the capital, of such undertakings.

There can be little doubt that light railway enterprise in this country has been seriously hampered by the difficulty of securing the necessary financial support, and that this difficulty might be removed, in part at least, if Local Authorities were endowed with the additional powers defined in the amendment.

At the recent meeting of my Committee the members were unanimously of opinion that these additional powers were very desirable, and that the amendment should be accepted; and they decided that an expression of this opinion should be conveyed to the proper official quarter without delay.

* * * * *

Copy of Proposed Amendment.

Amendment of Light Railways Act, 1896 (as incorporated in Railways Bill, 1921).
 Clause 3 (1) To subsection (b) after the word "order" add :—

"Or guarantee the interest on any loan or on the share Capital or any part of the share Capital of the Company either alone or subject to a covering Guarantee of the interest or any part of the interest by any Authority, Landowner, Limited Liability or Private Company, but such covering guarantee shall be first approved by the Minister of Transport. Before any Council shall guarantee the interest on any loan or the share Capital or on any part of the share Capital of any Company a meeting of Ratepayers shall be called to approve the action of the Council at a place and in such manner as may be approved by the Minister of Transport and at least Twenty-one days Public Notice of such meeting shall be given in such manner as the Minister of Transport shall determine. The sanction of the meeting shall not be considered as given unless a majority of two thirds of the Ratepayers present and voting concur in the resolution."

Supervision or Control by the State.

15. With regard to the possible exercise of control or supervision of light railway undertakings by the State in cases where financial assistance is drawn from public funds, we think that in every case in which such assistance is rendered in future either by the State or by a Local Authority the Minister of Transport should have some voice with regard to the design of the railway concerned, and that, where the State or a Local Authority contributes to the share capital of such undertaking, the State or the Authority so contributing should possess all the ordinary rights of shareholders.

Acquisition of Land.

16. We are of opinion that the purchase of land and the legal and other expenses connected therewith, as well as the compensation payable in respect of injurious affection, have placed an unduly heavy burden upon light railway undertakings. In some instances, no doubt, the attitude adopted by landowners towards light railway projects has been generous, but it cannot be said that, as a general rule, they have assisted such projects either by the free gift of land or by conveying it to promoters on favourable terms.

17. We are in general accord with the views expressed by the Acquisition and Valuation of Land Committee, some of whose recommendations we have quoted in Appendix A. There are, however, certain of these recommendations which appear to us to possess particular value in relation to light railways. We are agreed that the Lands Clauses Acts require further modification, and that, so far as the compulsory purchase of land for light railway purposes is concerned, modifications of existing law and practice are especially desirable with regard to :—

- (a) the customary allowance of 10 per cent. hitherto made in respect of the element of "compulsion";
- (b) the basis upon which the standard of value to the owner is assessed;
- (c) the special suitability or adaptability of the land for a particular purpose, and the method of dealing with a case in which there is no market apart from the special needs of a particular purchaser;
- (d) enhancement of market value due to improper use of the land or premises thereon; and
- (e) the assessment of value in cases where there is no general demand for land for any purpose other than that for which it has been used prior to compulsory acquisition.

We are aware that modifications of existing law and practice in respect of all of the matters mentioned above have already been embodied in Clause 2 of the Acquisition of Land (Assessment of Compensation) Act, 1919; but this Act applies only to compensation in respect of land compulsorily acquired for public purposes by a Government Department or by a Local Authority, or by a "body of persons not trading for profit"; and it is, therefore, of little value for light railway purposes. We think that the advantages offered in Clause 2 should be made available also to private promoters of light railway projects.

18. There is no doubt, also, that light railway promoters would find it advantageous in some cases if they had power to acquire an easement only, where this would be sufficient for their purpose. They would thus be enabled in many instances to avoid the heavy expenditure which the actual purchase of the land concerned would entail.

Further, the existing restrictions with regard to the holding and disposal of surplus land may sometimes place a light railway company at a serious disadvantage; and we think that, in certain cases, a wider freedom in this connection might well be granted.

19. *We recommend, therefore, that, where it is proposed to acquire land compulsorily for light railway purposes,*

- (1) *The rules for the assessment of compensation which are contained in Clause 2 of the Acquisition of Land (Assessment of Compensation) Act, 1919, should be made to apply.*
- (2) *Promoters should be empowered to acquire an easement only, in over or under land, in cases where such easement would be sufficient for the purposes of the undertaking.*
- (3) *Subject to such conditions as the Minister of Transport may see fit to impose in any special case, promoters should have an unrestricted power to hold and dispose of surplus land.*

With regard, however, to the first of these recommendations, we desire to make it clear that we do not contemplate any alteration of the provisions of the Light Railways Acts under which questions of disputed compensation are referable to a single arbitrator. We think that those provisions should continue to apply.

We note with satisfaction that, so far as they relate to the customary allowance of 10 per cent. and to the holding and disposal of surplus land, the foregoing recommendations could be carried into effect under Clause 68 of the Railways Bill.

Betterment.

20. With regard to the principle of betterment, we are in agreement, generally, with the recommendations (see Appendix A) which have been made by the Acquisition and Valuation of Land Committee and by the Inter-Departmental Development Committee. It seems to us to be only equitable that, where the value of neighbouring property is increased by a particular improvement effected by the State or by a Local Authority or by a light railway undertaking authorised in the public interest, the State, or the Authority or Company concerned should be entitled to share the benefit of such increase.

The principle of betterment, as affecting promoters, has been recognised, though somewhat faintly, in Clause 13 of the Light Railways Act, 1896. This provides that, in fixing the amount of compensation to be paid where land is compulsorily acquired, the arbitrator shall take account of any benefit which may accrue to the remaining and contiguous property belonging to the same owner. This proviso, however, has been of little or no effect. *We think that the principle should be more widely recognised and that the application thereof should not necessarily be limited to the owner of the property which is to be compulsorily acquired.*

Continental Light Railway Development and Practice.

21. We have already referred to the statement, contained in Appendix K to our Report, concerning the development and practice of Light Railways in Continental countries and in India. This statement presents, we think, a fairly clear and comprehensive picture of the light railway position in Belgium, France and other European countries. In particular it indicates that, as a general rule, the Governments concerned have had a very lively conception of the benefits of light railway enterprise, and that, to a far greater extent than our own Government, they have associated themselves directly with such enterprise and have systematically fostered it.

This intimate association between States, Local Authorities and promoters is, indeed, the principal feature which distinguishes Continental light railway enterprise from our own. In many instances the foreign lines to which we refer are actually owned by the State, and, even where they are not so owned, they are frequently subject to the closest supervision and control. We are not convinced, however, that the results achieved have, on the whole, been such as to prove that an attempt should be made, at this late stage, to foster light railway enterprise in the United Kingdom by the adoption of similar measures. The case of Belgium would, perhaps, appear to furnish some justification for refashioning our light railway system upon a Continental model; but it is to be borne in mind that Belgium is a small and densely populated country, that its soil is capable of intensive cultivation, that its agricultural and industrial resources are, to a great extent, juxtaposed, and that the greater part of its vicinal railway system is laid in country which is decidedly "easy" from the engineering point of view. Similar conditions do not obtain, to anything like the same extent, in the United Kingdom.

22. There is the further consideration that in Belgium, as in many other Continental countries, the activity of the State and Local Authorities in matters affecting light railway enterprise rests upon the tenet that transport is so much a matter of national concern that the indirect advantages which accrue to the community are a sufficient warrant for a liberal expenditure of public funds upon the construction, working and control of local railways, even in cases where the prospect of a commercial profit is remote. We think that this doctrine can be defended and that there is much to be said for the theory that transport services should be provided in the public interest even in areas where no direct profit could be realised. In present circumstances, however, we feel that any discussion of such theories would be futile and academic. The question of public ownership and control raises a political issue which lies outside our mandate as a Committee and we do not feel that we are called upon to frame any recommendation thereon.

23. *We are of opinion, however, that, quite apart from questions of ownership and control, future light railway policy in the United Kingdom should aim at encouraging the undertakings concerned by the grant of special facilities by the State and by the larger railway companies. We think that a closer concentration upon this object would tend to obviate, or at any rate to reduce, the demand for direct pecuniary assistance from public funds.*

Economic Position and Prospects of Light Railways.

24. The financial position of light railways generally in the United Kingdom is unsatisfactory. There are, it is true, a few undertakings of which it can be said that they have attained prosperity or that they show promise of doing so; but these cases are unusual. In Tables B and C included in Appendix B to our Report, we have set forth particulars of the receipts and expenditure of a large number of light railways in Great Britain and Ireland, the details having been taken from the Official Railway Returns for the year 1913. The figures show that, for the last year of normal working prior to the war, the great majority of the undertakings concerned yielded only a very small return upon the nominal amount of the capital raised and ranking for dividend. In an appreciable number of cases the year's working resulted in an actual deficit. The lines in Great Britain showed, on the average, a return of only about 2.29 per cent. on the capital, whilst even this figure would have been reduced to 1.90 per cent. by the exclusion of two standard gauge lines which carry a heavy industrial traffic and possess to some extent the character of "heavy" railways. In the case of the Irish lines the average return on capital was only about 2 per cent., and even this figure is qualified by a reference to the large amount of capital which has been advanced to these railways by the State and is not included in the figures of capital raised and "ranking for dividend."

It must be remembered, however, that in many instances the nominal capital of a light railway company is greatly in excess of the amount of the cash actually subscribed for the construction and equipment of the railway and that, where this is the case, the dividend figures do not adequately represent the actual return upon the money invested.

25. At the outset of our enquiry we found it to be a general impression that the financial difficulties of light railways in the United Kingdom were due to the fact that the proportion of working expenses to gross receipts was much higher than in the case of the main line undertakings. The figures contained in Tables A 1 and A 2 in Appendix B show that, with regard to light railways in Great Britain, this impression was erroneous. For the year 1913 the ratio in respect of the main lines worked out at 53.3 per cent., and that in respect of the light railways at 66.6 per cent., but in this connection it is only fair to add that the figures in individual cases varied very considerably.

In the case of the Irish light railways the proportion of expenditure to gross receipts was in the neighbourhood of 80 per cent. We are agreed that the financial difficulties of many of the undertakings in Ireland are aggravated by the extent to which their gross earnings are absorbed in the payment of working expenses. This is probably due, in part, to the inadequacy of the gross receipts in relation to the amount of capital involved, a disparity which is probably accentuated in some cases by the fact that the capital raised was itself excessive.

26. *With regard to the light railways in Great Britain we are satisfied that the poor financial results obtained in 1913 were mainly due, not to any failure to exercise economy in the matter of working expenses, but to the smallness of the earnings in relation to the capital involved.* Here again, however, it is necessary to bear in mind that, in many cases, the nominal capital exceeds the amount of the cash actually subscribed for construction and equipment and that, in such instances, the figures of dividend do not fully indicate the actual return upon the money invested.

27. We have suggested that the amount of traffic with which light railways have to deal is insufficient, in many cases, to produce a commercially satisfactory return upon the capital on which dividend is payable; and future policy should no doubt aim at a development of traffic itself. At the same time we think that in other directions much may be done to place the undertakings upon a sounder financial basis. This is even more imperative now than in the pre-war period. The adverse economic influences arising out of the war have thrown an added strain upon the finances of light railways generally. In order to combat these influences it will, we think, be necessary to simplify methods of construction, maintenance and operation, to improve existing organisation, to economise in matters affecting the employment of labour and to ensure that rates and fares shall be calculated upon an equitable basis. In Sections II and III of our Report we submit recommendations which have these objects in view.

Taxation by the State.

28. By Clause 12 of the Light Railways Act, 1896, undertakings authorised thereunder were exempted from the payment of Passenger Duty. This provision no doubt implied a recognition that, at the time of the passing of the Act, light railways were not in a position or likely to be in a position to bear such taxation as might reasonably be imposed on main line companies. It seems probable, also, that the Government of the day were influenced by a consideration of the practice obtaining on the Continent, where light railways frequently enjoyed extensive remissions of State and local taxation. At the present time the ability of light railways in Great Britain to bear taxation, the incidence of which may fall directly upon the undertakings themselves and not upon the users of the railways, is certainly no greater than it was in 1896; and, in this connection, it has been represented to us that the Corporation Profits Tax recently imposed has placed upon light railway companies an additional and serious burden.

Having regard to the financial and economic position of these companies we recommend that the possibility of exempting them from liability for the payment of Corporation Profits Tax should be seriously considered.

Rating by Local Authorities.

29. One of the objects of light railway development in the past has been to facilitate the carriage of commodities which could not be dealt with economically by means of road transport. With the advent of mechanical road transport the situation has altered. Not only have the new road services attracted traffic from the railways, but they have also necessitated the adoption of a higher standard of road maintenance the cost of which is borne partly by the State and partly by the localities concerned.

There has been, in effect, a considerable increase in the amount of the rates levied for road improvement and maintenance. This has thrown an added burden upon the railway companies, who are suffering at the same time a loss of revenue in respect of the traffic attracted from the railways to the roads. It may be said, in fact, that the former are now being required to subsidise competitive services. It is to be noted in this connection that the claim of railway companies to be exempted from local rates levied for purposes from which they derive no benefit has long been recognised in the Public Health Acts, and the facts to which we have drawn attention would seem to warrant some extension of the existing exemptions.

In these circumstances we consider that the time has come when the question of the revision of the rating of railways should be seriously considered, with particular reference to the incidence of highway rates.

Re-classification of certain undertakings as "Light" Railways.

30. We note that Section 18 of the Light Railways Act, 1896, provides that a railway company whose undertaking has not been authorised under that Act may apply for an Order authorising it to work the whole, or any part, of its undertaking as a light railway under the provisions of the Act.

In future, railways generally will depend largely for their success upon economy in operation, and we are satisfied that there are many undertakings which would find it advantageous to secure the benefits afforded by the Act of 1896 and such further facilities as may be provided by future light railway legislation. This applies, not only to small and independent undertakings, but also to many of the branches of main line companies. The growth and development of these companies have arisen very largely from the absorption of subsidiary undertakings having the nature of light railways. We are aware of numerous branch lines of main line companies which, although they are owned by these larger companies, might, nevertheless, be regarded for all intents and purposes as light railways, and we think that, if they were legally classified as such, considerable advantage would result.

We are strongly of opinion, therefore, that no unnecessary obstacle should be placed in the way of any small undertaking which may desire to be so classified and that, in respect of certain sections of their undertakings, main line companies also should be enabled to take advantage of Section 18 of the Light Railways Act, 1896, without difficulty and with the minimum of expense. We think that the relative procedure should be rendered as simple as possible and that payment of the fee of £50 which has usually been demanded in this connection should no longer be required.

31. The considerations which should guide the appropriate Government Department in deciding whether any particular line should or should not be treated as a "light railway" under Section 18 of the Act of 1896 are intimately associated, in our opinion, with considerations of speed, permanent way construction and weight of rolling stock. We have thought it desirable, therefore, to deal with this aspect of the matter in Section II of our Report (see paragraphs 34 to 38 inclusive).

SECTION II.

CONSTRUCTION.—EQUIPMENT.—MAINTENANCE.—OPERATION.

Gauge.

32. In Appendix C to our Report we submit a description of the construction of light railways in the United Kingdom and of the rolling stock employed thereon, and in paragraphs 1 to 21 of that Appendix we have dealt at some length with the question of gauge and with the arguments which are commonly adduced both for and against departures from the normal gauge. We recognise that, subject to the qualifications there indicated, the adoption of a narrow gauge may be expected to effect an appreciable saving in length of line by the use of sharper curves, and that economies can also be effected in the cost of earthwork, ballast and sleepers. It is obvious too that, where a light railway has to be laid on a public road, a departure from the standard gauge offers marked advantages. We recognise also that it is possible to construct a narrow gauge railway capable of taking heavy engines and capacious rolling stock, as has been done in South Africa and India, and that an equally high ratio of paying load to dead load may be attained in narrow gauge operation.

Against these advantages, however, must be set the qualifications which we have indicated in Appendix C and, in particular, the disadvantage which arises from the necessity for transshipment at points where light railways "break gauge" with main lines. We do not attach to this disadvantage the weight which has been given to it by some zealous advocates of the standard gauge. We think that in certain circumstances the difficulties due to transshipment may be overcome by organisation and by the use of labour-saving appliances, especially where tipping of raw material can be resorted to without ill effect, or may be more than counterbalanced by the advantages attainable in other directions by narrow gauge construction and working, especially in a case where the light railway concerned has a long lead, or there is no prospect that connection with a main line system will eventually be required. Nevertheless we are satisfied that, except in those rare instances in which passenger traffic only has to be transferred, a break of gauge

is disadvantageous and should only be resorted to where it is clear that the inherent objection to transshipment can be offset or overcome. From this it follows that each case must ultimately be settled on its merits, but we think that in this as in other matters it is possible to lay down a broad general principle for the guidance of promoters.

33. We are agreed that, where a proposed light railway is to be so located that no connection with a main line system is possible or likely to be required, the choice of gauge may be determined in the main by considerations of economy in construction and maintenance. We recommend, however, that where connection is to be made with a main line or there is reason to think that such connection may ultimately be necessary, a narrow gauge should not as a rule be adopted unless the proposed light railway is to have a lead of more than 20 miles or is intended to form an integral part of an existing narrow gauge system which could not advantageously be converted to standard gauge. We think that, in cases where it is decided to depart from the standard, the gauge selected should be 2 feet 6 inches, and that this should in future be regarded as the standard dimension for narrow gauge lines.

Axle Loads and Weights of Rail in Relation to Speeds.

34. In the construction of a light railway the permanent way is generally the most costly individual item, and the weight of rail to be selected is therefore a factor of the first importance. This cannot be determined, however, without reference to the maximum axle-load to be carried and to the speed which is to be observed. All three factors are intimately associated and must be considered together.

In the closing paragraph of Section I of our Report, and in Appendix D, we have suggested that these factors furnish some of the principal considerations which should guide the appropriate Government Department in deciding whether any particular line should, or should not, be treated as a "light railway."

It is obvious that such relaxations of technical restrictions as may safely be permitted to light railway undertakings by future legislation must depend to a great extent upon the limits of speed which they may be willing to accept. In this connection we think that some elasticity of treatment will be necessary in order that an undertaking desirous of obtaining the fullest possible measure of relaxation may be able to do so by adopting a decidedly low speed limit.

The evidence presented to us indicates that light railway undertakings generally do not desire the authorisation of speed limits exceeding that of 25 miles per hour, and we anticipate that in many instances there would be no reluctance to accept an appreciably lower limit if it were clear that such acceptance would admit of commensurate economy in construction and operation. We are satisfied, indeed, that in future many light railways in the United Kingdom may find that a much lower speed limit could be adopted without any real sacrifice of efficiency, and we think that there will be a tendency in this direction. The experience of Continental light railways has shown that this is practicable and may confidently be expected to lead to considerable economies in construction, maintenance and working.

35. We recommend therefore that, in future, light railways should be classified in two groups as follows:—

Group I.—Lines working to an authorised maximum speed of 25 miles per hour.

Group II.—Lines working to an authorised maximum speed of 15 miles per hour, or such lower maximum as may be agreed to by the Minister of Transport.

36. We are agreed that, so long as the speed limits now authorised in respect of light railways are maintained, no considerable relaxation of the restrictions at present imposed in the interests of public safety is either necessary or desirable. In all the evidence which we have received from the companies concerned there has been practically no adverse criticism of the regulations hitherto imposed by the Board of Trade and none at all of the spirit in which they have been applied either by the Board or by the Ministry of Transport. In various directions, however, and especially in connection with light railways of the class included in Group II, certain relaxations are desirable.

37. We think that a greater variation in respect of the comparative weights of rail and axle-load should be permissible and that this could be conveniently provided for by the adoption of an official sliding scale indicating, on the one hand, the various weights of British Standard Section rail likely to be used for light railway purposes and, on the other hand, a range of maximum axle-loads appropriate to each weight of rail specified. From such a sliding scale the promoters of a light railway undertaking could select the weight of rail desired, subject to the understanding that this should fall within the range allowed by the scale, and could then insert in their draft Order the selected weight of rail, the maximum axle-load proposed, and also the relative figures of speed. At a later stage, when the draft Order became the subject of enquiry by the Ministry of Transport, the several figures would be discussed and settled.

We recognise that, in certain cases and for very special reasons, promoters might desire to use an exceptionally light rail, i.e., lighter than any for which provision was made in the sliding scale. We think it desirable that the Minister of Transport should have discretionary power to permit such a departure from the sliding scale if, at the "enquiry" stage, the promoters had been able to satisfy the official authority there concerned that it was desirable and might safely be permitted.

We have reason to believe that the procedure we have suggested above would be advantageous alike to the promoters of new light railways and to existing undertakings.

38. In this connection we had an opportunity to examine and comment upon the recent revise of the Requirements with regard to the Opening of Railways. In Appendix VII to the draft document the variations from and relaxations of the Requirements to be permitted in the case of Light Railways or Lines of Local Interest were set forth—see Appendix E to our Report.

With these we found ourselves in general agreement, and an informal communication to that effect was made to the Committee engaged upon the revision of the Requirements. We suggested, however, that the reference in Appendix VII to paragraphs 22 and 23 of Section B of the Requirements should state that these paragraphs were not applicable to Light Railways and that the weight of rail in each case might be selected, with due regard to speed, alignment and traffic conditions, from the range prescribed in the following table, and that special cases would be considered on their merits by the Minister of Transport.

TABLE.

Weight of Rail in lbs. per Yard.	Maximum Axle-load in Tons.
30	4 to 6
35	5 to 7
40	6 to 8
45	7 to 9
50	8 to 10
55	9 to 11
60	11 to 13
65	13 to 15
70	15 to 17

This suggestion has since been accepted by the Committee concerned and has been included by them in the revise of the Requirements, but we desire to record it here in order that it may have the force of a formal recommendation by this Committee. We recommend at the same time that the procedure to be followed in the application of the sliding scale should be that which we have suggested in paragraph 37.

Further, in order to reserve to the Minister of Transport the necessary discretionary power to sanction departures from the scale in special cases, we think it important that, in the first sentence of the Clause headed "Provisions as to Working" in each Light Railway Order, the words "without the previous consent of the Minister, etc., etc.," should not be omitted.

Form of Light Railway Orders.

39. It has been represented to us that the forms of draft Order which were prepared by the Light Railway Commissioners some years ago have been found of service by promoters, and it has been suggested that Schedules of Model Clauses for insertion in draft Light Railway Orders should be printed and made available for the use of promoters. We think that by this means the procedure in respect of applications for Orders would be rendered less troublesome and that economy of time and money would result.

We do not think it desirable, however, that the form of Schedule which is appended to each Order, and sets forth the requirements in respect of signalling and other matters, should be similarly stereotyped. In respect of these requirements it is desirable that there should be considerable elasticity of treatment, and that, for each undertaking, the stipulations to be included in the Schedule should be determined on the merits of the case. We recommend, therefore, that complete Schedules of up-to-date Model Clauses for insertion in draft Light Railway Orders should be printed and made available for the use of promoters, but that in these forms the space provided for the Schedule of Requirements be left blank.

Signalling, etc.

40. In Appendix VII to the revise of the Requirements to which we have already referred it is indicated that appreciable variations and relaxations may be permitted, in the case of light railways, with regard to signalling, points and cognate matters. With these concessions, as we have already stated, we are in general agreement. We are of opinion that the requirements which it has hitherto been usual to specify in the Schedules appended to Light Railway Orders could not well be relaxed, without a serious sacrifice of safety, in favour of the "higher speed" (Group I) lines to the classification of which we have referred in paragraph 35. On the other hand we recommend that, in the case of the lines included in Group II, with an authorised maximum speed of 15 miles per hour, no signals as a rule should be required.

Level Crossings and Fencing.

41. The obligations laid upon an ordinary railway company to provide gates at level crossings arise primarily under the Highway (Railway Crossings) Act, 1839, and Section 9 of the Railway Regulation Act, 1842. These enactments are included in the Second Schedule to the Light Railways Act, 1896, and therefore do not apply to a light railway unless expressly applied by the relative Order. They are never so applied. Section 47 of the Railways Clauses (Consolidation) Act, 1845, relating to the provision of gates and Section 6 of the Railways Clauses Act, 1863, relating to the provision of lodges for gatekeepers do not apply to a light railway (or indeed to any other railway) unless incorporated in the relative Order or enactment. They are never incorporated in Light Railway Orders and, so far as we are aware, an obligation to provide lodges has never been imposed upon a light railway undertaking authorised under the Light Railways Acts.

With regard to the provisions of fencing, the obligation laid upon ordinary railway companies is primarily contained in Section 10 of the Railway Regulation Act, 1842, which is included in the Second Schedule to the Act of 1896 and is never applied to light railways. Section 68 of the Railways Clauses (Consolidation) Act, 1845, prescribes obligations to provide fencing in connection with accommodation works generally and is necessarily incorporated in Light Railway Orders, but it is frequently varied by a clause in the Order limiting or entirely excluding the obligation to fence.

It would appear, therefore, that light railways in Great Britain enjoy considerable freedom with regard to fencing and to protection at public roads, and it is recognised that, in many cases of level crossings, the opportunity has been taken to avoid unnecessary expenditure under this head. It will be seen, however, from the survey of present practice contained in Appendix C, that very considerable capital and annual charges have actually been incurred. Except in a few instances, the lines are fenced throughout, whilst heavy expenditure is involved in the provision of crossing gates; and, although the employment of gatekeepers and the provision of lodges are not required in the case of undertakings authorised under the Light Railways Acts, considerable expense is incurred under these heads also.

42. We are satisfied that greater simplicity of practice is desirable and could be attained without any serious sacrifice of safety or convenience. This should be more easily practicable in the case of lines working to the lower speed limit of 15 miles per hour, recommended as an alternative in paragraph 35; but we think that even in the case of lines included in the "higher speed" group there is room for a wider departure from main line standards. On many Continental light railways the provision of fencing is limited to closely inhabited areas, to the neighbourhood of station yards, to the flanks of level crossings and to other points where the need for such protection is more or less imperative; and the requirements with regard to the provision of gatekeepers at level crossings are similarly lenient. Much depends of course on the speed of trains and the frequency of the service, upon local conditions, on national custom and upon the stringency of the laws in force with regard to the payment of compensation for loss or damage occasioned to persons or property by the construction or working of a railway. In the United Kingdom the requirements in respect of light railways have been determined to a great extent by considerations of speed; and in many cases the undertakings themselves have elected to insure against claims for compensation by taking precautions upon which the official authority would not insist.

So far as precautions due to considerations of speed are concerned, we think that light railway practice rests to some extent upon tradition. Prior to the advent of railways public conceptions of vehicular speed were derived from experience of the stage coach and the carrier's cart. The much greater speeds attained on main line railways obviously called for extensive measures of protection, and, although light railways are less stringently bound in this respect, we think that they are still affected by "main line" traditions. At the present time the speed of road motor vehicles is comparable with, and in open country frequently exceeds, that attained upon light railways. The risks of accident upon the roads are nowadays quite appreciable, and yet the safety of the public thereon depends, in the main, upon the common sense and caution of the drivers and pedestrians themselves. We do not suggest that the traffic on light railways which are laid elsewhere than on public roads can be governed by the same regulations as that upon an ordinary highway, but we think that the analogy is sufficiently close to merit attention and that, especially in the case of undertakings working to a speed limit of only 15 miles per hour, the practice with regard to the fencing of light railways and to protection at level crossings might well be modified.

43. *We recommend, therefore, that fencing should be provided only where local conditions, coupled with a consideration of the speed limits imposed, render such provision absolutely essential and that the protection of level crossings by means of gates (and gatekeepers) should be similarly limited.*

We consider that, in lieu of gates, the imposition of suitable speed limits, coupled with the display of speed and whistle boards and of warning notices to the users of the public crossings, might more frequently be accepted as providing adequate protection. In such cases cattle guards should be provided to secure immunity from trespass by cattle, etc.

At level crossings where gates are determined to be essential and cannot be worked by the traffic staff at adjoining stations, the normal position of the gates should be across the light railway; and, provided that they can be opened and closed by the firemen and guards on the trains, gatekeepers should not be necessary.

We realise, at the same time, that crossings which may not call for special protection at the time when a line is opened for traffic may ultimately alter in character in such a way as to render additional precautions desirable, and we are of opinion that power should be reserved to the appropriate Government Department to call upon an undertaking in such a case, at any time, to provide such additional protection as may be considered necessary.

It should be added that, in commenting upon the question of fencing and of protection at level crossings generally, the Light Railway Commissioners have pointed out that the practice which has hitherto prevailed has been determined largely by the attitude adopted in these matters by the owners and occupiers of land and by local road authorities.

We desire to endorse this statement and we think it undesirable that such owners, occupiers or authorities should be in a position to require a light railway company to incur greater expenditure than may reasonably be necessary on the provision and maintenance of protective works.

Bridges.

44. Where a light railway crosses a public road and the company is required to erect and maintain a bridge in order to carry the road over the railway or the railway over the road, the capital and annual expenditure involved is necessarily considerable. We think that such bridges have been provided in many cases where the requirements might well have been met by level crossings with or without gates.

We recommend, therefore, as a general principle, that a light railway company should not be required to provide a bridge to carry the railway over a road or a road over the railway, except where it is clear that no economy could be effected by providing and maintaining a crossing on the level or where the user of the roadway or the physical conditions are such as to render the provision of a bridge essential.

The pressure exercised by local authorities is sometimes instrumental in inducing light railway companies to incur expenditure upon the provision of bridges where level crossings would reasonably suffice. *We think it important that undue weight should not be allowed to the arguments adduced by local authorities in pressing for the provision of bridges in lieu of level crossings.*

Station Accommodation.

45. Some indication of the nature and extent of the station accommodation provided on light railways in the United Kingdom is given in the statement contained in Appendix C. We consider that, so far as the building accommodation provided for the convenience of passengers is concerned, there has been a tendency to conform too closely to main-line practice, whilst the facilities provided for the housing and handling of freight traffic, on the other hand, are not always adequate. *We think that future policy should aim, generally, at a stricter limitation of the accommodation intended for use in connection with passenger traffic, whilst ensuring at the same time that the facilities provided for the receipt and despatch of freight traffic shall be more closely adjusted to the requirements of each case.*

When passenger accommodation is necessary on a light railway we think it should take the form of a simple shelter, except at important stations. Halts, with the simplest possible shelter, should suffice at wayside places; and, wherever it is practicable, tickets, fares and "stamped" parcels traffic should be dealt with by the guards of trains.

46. It has been usual, hitherto, to allow a light railway undertaking to dispense with raised platforms in cases where the coaching stock is fitted with suitable steps for the use of passengers ascending from or descending to the ground level. Nevertheless, raised platforms are commonly provided, and it is claimed that, in the case of light railways of standard gauge, they admit of the use of second-hand rolling stock purchased at favourable prices from main-line companies and that this is a great advantage. There can be no doubt that passengers usually find a raised platform convenient; and in the loading and unloading of small consignments of freight or of live stock it frequently serves the purpose of a loading bank. Where, in addition, the existence of platforms admits of economy in the purchase of rolling stock from main-line companies, it is quite conceivable that it may be politic to provide them. It is certain, however, that where the number of stations or halts on a light railway is appreciable and a raised platform is provided at each, the total expenditure thus incurred must be considerable.

We think, therefore, that in every case where a new light railway is proposed the question of dispensing with platforms should be seriously considered, and especially in the case of a narrow-gauge line where the possibility of using second-hand main-line rolling stock is necessarily precluded.

Cost of Light Railway Construction.

47. The actual cost of the construction of existing light railways cannot be definitely ascertained, as, owing to the fact that original shares have commonly been issued at varying and heavy discounts, there has frequently been a wide disparity between the nominal amount of the capital issued and the actual cash amount of the capital raised for the purpose.

We submit, however, in Appendix C, a Table showing the nominal amount of capital raised in a number of typical cases, including the amounts of any loans or grants obtained.

This indicates that the nominal amounts which have been raised in the United Kingdom have varied much more widely than can be accounted for by differences of gauge or by variations in the physical features of the districts traversed. Taking the various examples of narrow-gauge lines quoted in the statement, the amounts per route mile vary from £3,333 in the case of the Clogher Valley Railway to £6,806 in the case of the Ballycastle Railway. In the case of the standard-gauge lines, of which examples are given, the corresponding figures vary from £3,501 in the case of the Hundred of Manhood and Selsey Railway, which serves an agricultural area and holiday resorts, to £25,262 in the case of the East Kent Railway, which carries a fairly heavy industrial traffic.

As an example of the extent to which the actual cost of construction may differ from the nominal amount of the capital raised for the purpose the case of the original Kent and East Sussex Railway may be quoted. In that instance, the actual cost of construction was approximately £54,000, whilst the nominal amount of the capital issued was as much as £78,000.

48. The present-day cost of construction and equipment (July, 1921) may, we think, be taken as varying between twice and two-and-a-half times the pre-war cost; and, as the tendency of prices is downward, it is anticipated that in 1922 they will not represent, on the average, an advance of more than 100 per cent. on pre-war figures. These estimates, however, are highly speculative and are based, moreover, upon the assumption that the cost of acquiring land will be as great as hitherto and that pre-war methods of construction will continue to be followed; but we are confident that, in future, promoters will make more strenuous endeavour to effect every possible and legitimate economy in this connection, and that, from this cause, alone, a general reduction in the cost of construction will result.

We anticipate, also, that, if the various recommendations which we submit are adopted, the efforts of promoters in this direction will be greatly assisted; and we venture to hope that, even in the near future, the actual cost of light railway construction may not greatly exceed that which was regarded as necessary prior to the War. *In particular, we are of opinion that if, on the*

security of public guarantees, the necessary capital could be obtained at par, the cost of construction (to the companies concerned) would be reduced and many undertakings which could not otherwise yield a dividend on their ordinary shares would achieve a reasonable commercial success. Rolling Stock.

49. A brief description of the rolling stock employed on light railways in the United Kingdom is submitted in Appendix F.

Although, as a general rule, the quantity of rolling stock at present provided would appear to be suitably adjusted to the traffic requirements, there is reason to believe that, in many cases, the original equipment was either inadequate or excessive and that the adjustments subsequently necessary have been so considerable as to involve either heavy and unforeseen expenditure upon the purchase of additional stock or appreciable loss in the disposal of surplus equipment. The promoters of new undertakings have necessarily been compelled to base their original purchases upon estimates of the probable volume of traffic to be carried, and it was to be expected that such estimates would frequently fall short of or transcend the actual requirements. Nevertheless, we think that greater exactitude might have been attained, and considerable economy effected, if the importance of this matter had been more fully realised.

The same consideration applies, and possibly with greater force, to the question of design. It has not been uncommon, in the past, for a new undertaking to be equipped with rolling stock of types which have been found subsequently to be unsuitable for, and to militate against the economical working of, the traffic with which the undertaking has had to deal. In this connection we have been struck by the great variety of design displayed in the rolling stock employed on light railways generally, and we are satisfied that the absence of uniformity in this matter has not only prevented undertakings in the same area from assisting each other by the interchange of stock but has rendered the purchase, maintenance and renewal of their stock more costly than they need have been. The possibility of common action in this connection is essentially a matter of organisation and management, and is, therefore, dealt with more fully in Section III. of our Report.

We desire, therefore, to express our emphatic opinion that in the promotion of new light railways greater care should be taken to ensure that the quantities of locomotive, freight and coaching stock initially provided shall be adjusted as closely as possible to the traffic requirements, and that, in the case of new and existing undertakings alike, there should be a determined effort to secure economy by a standardisation of types and parts.

Use of Rail Motor Cars.

50. *We desire to point out that it may be possible in some cases to effect economy and to increase traffic by utilising either steam or internal combustion rail motor cars, in lieu of or in addition to steam-worked trains, for passenger services.*

Passenger Coaching Stock.

51. *With regard to passenger coaching stock we think that, in some instances, where two classes of accommodation are provided, an unduly high proportion of the total accommodation so provided is allocated to first-class passengers. Having regard to the character of light railways, to the local requirements which have to be met and to the short distances usually covered by the average individual passenger journey, it is thought that in many cases the provision of two classes of accommodation is unnecessary.*

Use of Tramway Rails by Light Railway Vehicles.

52. Reference is made in Appendix F to the suggestion that ordinary "tramways" might be more widely used for the carriage of goods and that added advantage would be gained if the width and depth of the groove in tramway tracks were so increased as to admit of the free passage of railway rolling stock.

Having regard to the fact that the present standard width and depth of the groove in these tracks have been fixed with due regard to public opinion concerning the safety of certain wheeled traffic, and that an increase in the width and depth of the groove would be necessary in order to allow of the passage of railway stock, it is possible that such wider and deeper groove might raise opposition at the outset from a certain section of the public in the case of tramways laid on public roads.

It should be pointed out, however, that, outside Great Britain, it is usual for railway stock to be run over tracks laid on public roads and streets; and we are much impressed by the advantages which are thus secured abroad but are generally denied in this country. We think that a similar extension of transport facilities is desirable in the United Kingdom and has been prevented partly by the traditional tendency to regard the presence of a railway vehicle upon a public road as an impropriety, and partly by opposition due to an exaggerated conception of the risks attendant upon such a use of the highway. Objections of this kind do not appear to have been sustained abroad and, in consequence, there has been a definite gain in the matter of transport facilities whilst the public concerned have apparently learned to appreciate the benefits accruing from the freer use of railway rolling stock.

We are of opinion that the use of railway vehicles should not be limited to cases where the track is laid elsewhere than on a public road. Provided that suitable regulations are applied, we see no reason why tracks on a public road or street should not be used for the purpose in cases where local and other conditions may render it practicable and where it is clear that substantial advantage would result.

Standards of Maintenance.

53. In Appendix G an indication is given of the standard, or standards, of maintenance attained by light railways in Great Britain. From this it will be seen that the standard is

highest in the case of those undertakings which are owned or worked by main line companies, approximating as it does to that of their own branch lines. Next in order come the standard gauge lines which are privately owned and upon which the traffic as a rule is sufficiently heavy and constant to necessitate a fairly high standard of upkeep and at the same time to render it financially possible. In the third and last group are the privately owned narrow gauge railways. Broadly speaking, the standard of maintenance on these last is low, and the present condition of many of them is decidedly unsatisfactory. In some instances the work of maintenance has fallen seriously into arrear, and in certain cases the traffic is only maintained with difficulty.

In the majority of these cases where the standard of maintenance is low we think that the reason is mainly financial. As we have suggested in paragraphs 24 to 26 of Section I. of our Report, the undertakings are handicapped by the smallness of the gross receipts which naturally enforces parsimonious expenditure on operation. In some instances the cost of maintenance work and, consequently, the present condition of the lines, are affected by the physical features of the districts served. In other cases the nature and volume of the traffic may be the prime determining factor. The wide variations of expenditure revealed by the figures relating to standard gauge and narrow gauge lines alike are due, however, to a great variety of causes. It would be impossible, without local investigation of the circumstances of individual undertakings, to explain the variations fully or to say, in particular cases, whether a higher standard of maintenance might reasonably be expected or whether equally good or better results might not be achieved in return for a smaller expenditure.

Standards of Operation; and Representative Train Services.

54. A description of the standards of operation at present maintained by light railway undertakings in Great Britain is submitted in the latter part of Appendix G and an indication of the nature and extent of the services provided by certain representative lines, of standard and narrow gauge respectively, is furnished in the Schedule included in the same Appendix.

55. The standard of operation on broad and narrow gauge lines owned or worked by main line companies would appear to be generally satisfactory; but, as a general rule, this cannot be said of the undertakings which are privately owned. Since the outbreak of war there has been, on many of these latter lines, a definite decline from the standard of operation formerly maintained. Early and late services have been withdrawn—in the case of controlled undertakings by orders of the Government—and, as a consequence, there has been a loss of traffic by the railways to the roads. We are satisfied from the evidence we have received that this curtailment of facilities has been necessitated to a great extent by the recent increase which has taken place in the wages of labour, by the reduction of hours and by changes in the general conditions. The difficulties thus created are more fully dealt with in Section III. of our Report, and a more detailed statement on the subject is submitted in the latter part of Appendix H but, as it bears directly upon the question of operation, we have thought it necessary to make allusion to it here.

56. On some of the independent light railways operation is further restricted by the lack of siding accommodation at stations and at exchange points as well as by a shortage of locomotive power and other working facilities; and it has been represented to us that there are many cases in which a more hearty co-operation on the part of the main line companies would be of material assistance in this connection.

57. The cost of operating light railways is heavy, and the figures quoted in Appendix G in respect of a number of typical standard gauge and narrow gauge lines reveal striking variations in the relative amounts of the charges incurred. It has been suggested that in some instances the best use is not made of the undertakings and that, as a consequence, revenue suffers; but we recognise that, in certain cases, there may be local circumstances which preclude improvement. Without actual experience of the working of individual railways it is difficult to express a definite opinion as to the soundness, or otherwise, of the system of operation in each case or to say whether a more economical standard of operation could be established. In this connection our attention has been drawn to an instance of a light railway, worked by a main line company, in which the advice of the Ministry was sought with regard to methods of operation and it was found possible to suggest valuable economies; and we have reason to believe that similar assistance would be valuable to the light railway in other cases also.

58. We are satisfied that, apart from labour conditions—with which we deal in Section III. of our Report—there is room at once for economy in methods of maintenance and operation and for the improvement of existing facilities for the handling of traffic.

We think that much might be achieved in this direction by the extension of sidings and other working facilities at stations and exchange points, and we feel confident that active co-operation on the part of main line companies in this connection would not only be of material assistance to the light railway undertakings concerned but would also have a favourable repercussion upon the business of the larger companies themselves.

We anticipate, at the same time, that the co-operation of the Ministry of Transport with light railway companies seeking its advice with regard to methods of construction, maintenance and operation would have valuable results, and we recommend that the readiness of the Ministry to investigate and to render assistance in such cases be made more widely known.

Formules d'Exploitation.

59. In paragraphs 47 and 48 of Appendix K we have indicated the nature of the various formule which have been adopted in France from time to time in order to determine the amount of the remuneration to be granted to companies working light railways under "concessions" granted to them by the Departments concerned. The object of these formule is to fix the remuneration of the working companies in such a way as to ensure efficient operation in cases where

the original cost of constructing the lines concerned has been borne by the Departments or where the undertakings are in receipt of subsidies or hold guarantees of interest from the State or the Departments. These formulae have been designed in order to safeguard the interests of the State and the Departments in undertakings which they own. There is no idea that public authorities in this country should construct, and lease the working of, light railways as has been done in France; and in present circumstances such formulae would seem to be inapplicable here.

SECTION III.

GENERAL ORGANISATION AND MANAGEMENT.—WAGES AND CONDITIONS OF LABOUR.—BASIS OF RATES AND FARES.

General Organisation and Management.

60. A brief description of the organisation and management of a number of typical light railways in Great Britain and Ireland is submitted in paragraphs 1 to 34 of Appendix A; as we have indicated therein, the systems adopted vary considerably with the magnitude of the undertakings concerned and with the nature and volume of the traffic with which they have to deal. We have pointed out, also, that, whilst certain of these undertakings are entirely independent, others are closely associated with main line companies or with Local Authorities; and we have drawn particular attention to the case of those light railways which are not so associated but are themselves "grouped" together for purposes of management. Where such variations as these exist—and it is manifest that they cannot be eliminated altogether—uniformity of organisation is clearly unattainable. We are satisfied, however, that the system of "grouping" to which we have referred possesses marked advantages, and we have considered whether it might not be more widely extended. It is obviously inconsistent with the first principles of industrial economy that, when the need for co-operation is so imperative, so many small and struggling undertakings should continue to remain in positions of virtual isolation. The "group" of light railway undertakings to which we have referred above, and concerning which more detailed information is embodied in Appendix H, possesses, in the aggregate, more than 100 miles of line. Geographically, the individual lines included in this co-operative "group" are somewhat widely separated; but, in many respects, and especially in the cost of managerial and professional services, notable economies have been effected. It can also be claimed in respect of this particular group that the system adopted has resulted in the provision of better facilities for the public.

61. We notice that the Railways Bill provides for the absorption of certain existing light railways into "amalgamated companies." This would result in a reduction of the number of small separate undertakings which could be "grouped" *inter se*. We suggest that, after the Bill has been passed, the Minister of Transport might consider the propriety of encouraging the separation from the main lines of undertakings which are really "Light Railways."

In this connection, also, we observe that in Clause 72 of the Railways Bill it is proposed to vary Section 24 of the Light Railways Act, 1896, in such a way that an amending order under that Section may confer upon a railway company the power to acquire the light railway to which the order refers, notwithstanding that the owners of the light railway do not consent. We are apprehensive that this provision in the Railways Bill will have a prejudicial effect upon the raising of capital for light railway undertakings in future. We suggest, therefore, that, if the Clause becomes law, (a) an application by a railway company for an amending order empowering it to acquire a light railway should be granted by the Minister only if he is satisfied that the light railway concerned has changed in character and become competitive, and (b) the order should provide for fair terms of purchase, to be settled in case of difference by arbitration.

We recognise that certain difficulties may attend any endeavour to extend the system of "grouping" which we have in mind. If, for instance, compensation had to be paid to officers whose posts were abolished in the process, the possibility of effecting economy would be appreciably diminished and a serious burden might be thrown upon undertakings whose receipts are usually small. It has been suggested, however, that it might be possible for individual companies to take the opportunity afforded by the occurrence of vacancies in personnel in order to secure inclusion in an existing group by a process of arrangement and, in so doing, avoid any burdensome charges in respect of compensation. We are agreed that the difficulty is not insuperable and that, with resolution and goodwill on the part of the companies concerned, it could frequently be overcome.

Centralisation of management should, however, do much more than effect economy in the cost of managerial and professional services. It should tend to reduce administrative charges generally; and, with a reduction in the number of responsible officers required, the "grouped" undertakings would be better able to offer attractive salaries and thus to secure and retain the services of men of first class ability, and this in turn would conduce to added efficiency and economy. In many cases also the arrangements for the purchase of rolling stock could be centralised, with obvious advantages. In the purchase and supply of materials and stores in particular the system of "grouping" would, we think, effect immediate and very large economies. In some cases it might be possible to have central repairing shops: but, even where this was not the case, a good deal could be done by the employment of travelling journeymen and by other similar expedients.

62. We are satisfied, therefore, that the principle of voluntary "grouping" for purposes of management could and should be extended wherever possible and that, even where so complete a measure of unification is impracticable, efforts should be made to establish a closer co-operation in matters affecting the design and repair of rolling stock and permanent way material;

and we are of opinion that, even where an undertaking is so located as to be unable to derive benefit from a centralisation of repairing work, it should at least endeavour to realise the large economies likely to result from the co-operative purchase of material and stores.

Wages and Conditions of Labour.

63. As we have indicated in paragraphs 35 to 44 of Appendix H, the financial position of existing light railways in the United Kingdom and the prospects of future development are governed to a great extent by the cost of labour. We are satisfied that the difficulties involved in the working of existing undertakings have been greatly aggravated during recent years by (a) the increase in the rates of wages, (b) the shortening of the hours of labour, and (c) the restrictions upon the employment of railway servants on duties of a mixed character or upon "split" duties. Each of these causes has contributed directly to increase the cost of labour, and, even if the present powers of charging were to be correspondingly augmented, it seems probable that in the case of lines having a short mileage the effect would be to divert traffic to road transport services and so prevent the railway undertakings from securing the desired increase in revenue.

There can be no doubt that the cost of the maintenance and operation of light railways generally has been greatly enhanced as a consequence of the arrangements made with the Unions representing the employees of the main line companies. In the case of railways which have been subject to Government control directions given by the State respecting the wages and conditions of labour on the main lines appear to have been applied without discrimination to light railways also, although in the settlement of these matters the smaller undertakings concerned were not, apparently, consulted. In the case of the uncontrolled light railways also the effect of the arrangements made in respect of main line employees has been seriously felt.

We do not think that these small undertakings can reasonably be expected to achieve success so long as they are subject to the application of "main line" standards in respect of the wages and conditions of labour. Apart altogether from the fact that their financial capacity is not such as to enable them to shoulder similar burdens, they differ essentially from the main lines with regard to the amount of traffic with which they have to deal, to the frequency of their train services and to the arduousness and constancy of the work which their employees have to perform. Under the conditions which obtain on the majority of light railways short periods of active employment alternate with long periods of slackness, or even of enforced idleness. These latter periods may cover the greater part of an eight-hour day, and in the absence of any arrangement for the "splitting" of attendances or for the employment of part-time labour a considerable expenditure is necessarily incurred in payment for idle time. In many cases it is necessary to employ two shifts of men for the performance of duties which are so light and intermittent that the total amount of wages paid is out of all proportion to the amount of work done and to the amount of revenue receivable in respect of it. It is not always practicable to provide by means of overtime for those margins of work which cannot be performed within an eight-hour period, and, even where this is practicable, the amount of work performed is frequently incommensurate with the expenditure involved.

It has been represented with equal force that insistence upon the elimination of mixed duties cannot be maintained in the case of light railways. Apart from the fact that the work to be done upon these latter lines is comparatively trifling in volume and is usually intermittent, the duties to be discharged are simple in character. As a general rule they contain no serious element of responsibility, nor do they normally require for their performance such a high degree of skill as on the main lines. Any attempt to classify them with strict reference to the particular character of each or to allocate them to separate grades or individuals in pursuance of main line practice, is, in our opinion, altogether out of place.

64. *We are convinced that emancipation from the influence which is at present strangling even the main lines in this connection is a vital necessity and that, if light railways are to be less heavily handicapped in future, the cost of the labour employed thereon must be brought into far closer relation with the quality and quantity of the services rendered and with the amount of the revenue to the creation of which those services contribute and from which alone their cost can be defrayed.*

65. We have referred in paragraph 44 of Appendix H to a suggestion that those light railways which have suffered loss by reason of the high cost of labour and can show that such loss has been due to the action of the Government should receive compensation.

We recognise that claims made for compensation under this head would call for the closest scrutiny, and that, in particular cases, it might be extremely difficult to arrive at any accurate assessment of the amount of loss attributable strictly to the exercise of State control. *At the same time we consider that there are many instances in which sound claims could be preferred, and that, in equity, such claims should be seriously entertained; and we think that similar claims preferred by light railway undertakings which have not been subject to State control should receive like consideration.*

Basis of Rates and Fares.

66. In Appendix J we submit information respecting the basis of the rates and fares in force on light railways in the United Kingdom. From this it will be seen that fares are usually calculated upon a mileage basis and, with a few exceptions, are subject to the same maxima as those in force on the main lines, and that, where through fares are in force, these are usually apportioned on a mileage basis. Freight rates are also subject, as a rule, to the same maxima as those in force on the main lines, although instances in which they exceed the latter by 25 per cent. are not infrequent. Where through rates are in force they are fixed by arrangement with the main line

companies and are dealt with by private settlement or by the Railway Clearing House. After allowance has been made for the terminal charges due to the individual companies concerned, the division of the through rates is usually effected upon the mileage basis; but in some cases light railways are allowed, as fixed proportions, sums equivalent to the full amounts of the local rates. In a few instances special rebates or terminals are allowed by the main line companies in respect of through freight traffic, but these cases are rather the exception than the rule.

We have come to the conclusion that, as a general rule, the rates and fares chargeable by light railway undertakings are inadequate. We have noted the proposal contained in Clause 71 of the Railways Bill that a light railway undertaking making connection with that of an amalgamated company or of a company to which a schedule of standard charges is applied shall be entitled to impose similar charges with the proviso that, in the calculation of mileage rates, each mile of a light railway shall be treated as if it were one mile and a-quarter. We are agreed that this proposal marks a step in the right direction. It is to be borne in mind, however, that the light railway undertakings operate under varying conditions and that one such undertaking may differ widely from another in respect of its economic position and possibilities; and, in view of this, we do not think that, in the calculation of mileage rates, it is possible to assess the additional mileage allowance required by light railways at any arbitrary figure. We are inclined to think that, in many cases, the proposed addition of 25 per cent. would be found inadequate; but, whether this be so or not, we think that no hard and fast rule could safely be applied, and that in any particular case an equitable basis of charging could only be arrived at after careful examination of the economic circumstances of the undertaking concerned. We think that this applies with equal force in cases where connections with main lines do not exist and that it is applicable to passenger fares as well as to freight charges, including the fixing and apportionment of through rates and fares.

67. *We recommend, therefore, that the rates and fares which light railways are authorised to charge, whether in respect of local or through traffic, should be determined primarily by reference to the economic circumstances of the particular line concerned and not by reference to any arbitrary rule, and that, in the apportionment of through rates and fares also, each case should be dealt with on its merits by the appropriate authority. We contemplate that this authority would base its consideration of all such cases upon recognition of the wide difference which ordinarily exists between the economic positions of light railway and main line undertakings respectively and upon the general principle that the revenue should in every case be such as to yield a reasonable return upon the capital involved. We are of opinion, in particular, that light railway charges should not be based upon any definite ratio to main line charges.*

Relationship of Light Railways with the Railway Clearing House.

68. It has been suggested to us that as many light railway companies are affected, more or less directly, by the acts and decisions of the Committee of the Railway Clearing House it would be of great advantage to these companies if they could be brought into closer touch with that institution and thus be kept more fully and promptly informed in matters connected with the fixing and apportionment of through rates and at the same time have some opportunity of expressing their assent to or dissent from the proposals or decisions of the Committee.

We are agreed that this is desirable and that, in accordance with the practice which obtains in Ireland, light railway companies in Great Britain should be admitted as members of the Clearing House, and should possess all the privileges of membership, excepting only the power of voting.

Representation of Light Railways on Official Panels and Committees.

69. We note that, in the proposals contained in Clause 22 of the Railways Bill for the constitution of the panels from which appointments may be made to the membership of the Rates Tribunal, no provision is made for the representation of light railway undertakings which are not parties to the Railway Companies' Association.

These smaller undertakings are already represented on the panel set up under the provisions of Section 23 of the Ministry of Transport Act, 1919, and we understand that it was the intention of the Minister that the light railway representatives so appointed should form a Light Railway Advisory Committee to which he could refer particular questions affecting the undertakings represented.

We think that the principle of the representation of Light Railways on official panels or committees which deal with matters likely to affect such undertakings is sound, and that whenever any such panel or committee is set up the claim of these smaller companies to representation thereon should be clearly and effectively recognised.

70. The evidence which we have received on the subject of rates and fares has revealed differences of opinion with regard to the advantages of through rates in respect of traffic exchanged between light railways and neighbouring main lines. Here, again, we think the balance of advantage in each case must be determined by local circumstances, e.g., by the possibility of securing rebates from the main line company concerned and by the additional cost of staff to which the adoption of through rates may give rise.

Subject to this qualification, however, we are satisfied that through rates are generally desirable, not only for the reason that they are advantageous to the public, but also because their institution necessarily brings the light railways concerned into closer contact with the main lines and thereby tends to facilitate the working and exchange of traffic.

SECTION IV.

ROAD MOTOR TRANSPORT AS AN ALTERNATIVE TO LIGHT RAILWAY SERVICES.

71. In a consideration of the policy which should govern the future development of light railways in Great Britain, the recent rapid development of road motor services for the transport of freight and passengers cannot be ignored. It raises at once the question to what extent these services already compete effectively with existing railway undertakings, and how far they may be expected to offer a positive alternative to the future extension of our light railway system in particular.

72. It cannot be denied that railway companies generally are feeling the effects of the present competition of motor-omnibus and lorry services and, as the rivalry is naturally keenest in respect of short distance traffic, it might be expected that the competitive influence would press most heavily upon the light railways. Few of these possess any considerable length of lead, and there is the further consideration that some of them make no physical connection with the neighbouring main lines and are therefore unable to transfer traffic to those lines without transhipment. Nevertheless, although the evidence we have received indicates that road motor vehicles are in direct competition with light railway undertakings in many areas, and that the latter in consequence have experienced a certain loss of revenue, this competition has apparently failed, so far, to deprive them of more than a small percentage of their gross receipts. So far as we have been able to ascertain, no light railway undertaking in Great Britain has succumbed, or shows signs of surrender; and in the majority of cases the loss of revenue involved is serious only because the margins of profit previously realised were so small that any diminution thereof, however small, must be a matter for concern. It is, we think, significant that undertakings so situated have shown their capacity not only to survive the many difficulties created by the War, but at the same time to hold their own in spite of the new facilities which are now available. We do not assert that light railways will always and everywhere prove able to maintain their position. We recognise that road transport agencies are daily demonstrating that they meet a public need, and we are agreed that there may even be instances in which a motor service may ultimately prove more economical and efficient than a light railway service.

73. It must not be forgotten in this connection that, whilst light railway undertakings are necessarily burdened by the heavy capital expenditure incurred in the purchase of land, in the construction of permanent way and in the provision of stations and depôts for the accommodation of passengers and goods, road transport agencies have not contributed to the first cost of the land occupied by the roads which they use, or to the original cost of their construction. The taxation recently imposed on motor vehicles no doubt implies a recognition of the fact that their owners have not hitherto borne an appropriate share of the cost of maintaining the highways on which they run, but we are of opinion that even the payments for which they are now liable are not commensurate with the extent of their user of the roads. The contributions made by other rate-payers to the maintenance of the roads are to a great extent expended upon repairs directly necessitated by the user enjoyed by transport agencies. Not only do the latter enjoy vicarious assistance in this respect, but in many cases—as we have indicated in paragraph 29 of Section I. of our Report—they derive some part of it from light railway companies, whose property is heavily assessed to local rates. At the same time road transport agencies escape the heavy capital and annual charges incurred by railway undertakings in the provision of station accommodation for passengers and also, to a great extent, the expenditure involved in the provision of goods depôts. In the endeavour to ascertain how the cost of a road transport service would compare with that of a corresponding light railway service we have had estimates prepared on the assumption that the former would be required to bear a fair proportion of the cost of constructing (or of reconstructing) and maintaining the roads on which it would operate; but we have found that no estimate which is based upon a consideration of average costs or of the figures relating to a limited number of individual cases can be relied upon to furnish any guide to general policy.* Apart from the fact that the merits of each form of service for purposes of future development cannot be accurately assessed until it is known what obligations will be imposed upon road transport companies in respect of the making and maintenance of the ways on which they operate, the factors to be considered are numerous and are not in every case the same.

74. One of the most important of these factors is the volume of traffic to be dealt with, but it will not suffice to consider only the annual ton-mileage and passenger-mileage for which provision must be made. Seasonal and other fluctuations must be taken into account. Agricultural and holiday traffic—to quote only two examples—vary widely at different times, and during “peak” periods the transport agency concerned may be called upon to deal with quantities of traffic far in excess of the normal. In the case of services making connection with main-line railways, wide variations in the volume of traffic may take place even in the course of a single working day, e.g., where, during certain short periods, the arrival and departure of heavy main-line trains may call for a high maximum effort on the part of the connecting service. It has been suggested that difficulties of this kind might be met more readily by a motor service than by a light railway, if by the “grouping” of road undertakings a ready interchange of vehicles between one agency and another were rendered possible. We recognise that such a flexibility in the allocation of vehicles could probably be provided for more easily in the case of lorries and omnibuses than in the case of light railway stock; but, even were such a system adopted, the fluctuations of traffic would still involve the provision of a larger number of motor vehicles than would be required if the traffic were of uniform density.

* Interesting information respecting the relative costs and advantages of a light railway and a road motor service in a particular district may be found in a Report submitted to the Development Commission in 1913 by Mr. G. A. Burls, M.Inst.C.E.

75. In determining whether a road motor service or a light railway would be better adapted to meet the requirements in any particular area, the nature, no less than the volume, of the traffic to be carried must be a determining factor. For the transport of iron ore, quarry material and the like there is, we think, no practical alternative to carriage by rail. In the case of fish traffic, on the other hand, time would be an important consideration and, consequently, much would depend upon the distance to be traversed between port and market. For the movement of live stock in large numbers, no suitable road motor vehicle has yet been designed, and, although road transport agencies may ultimately provide for this, the live stock owner must continue, for the present, to rely mainly upon railway facilities. It is manifest, therefore, that the nature as well as the volume of the traffic to be handled must be considered in every case.

76. It is perhaps with regard to agricultural traffic that the advantages of carriage by road are most strongly urged; but here again local circumstances will be found to determine the issue. Where the farms to be served are readily accessible to motor lorries—and this is not infrequently the case—a road service may provide those “door to door” facilities which a light railway cannot afford. Under such conditions the former would offer marked advantages. It has been argued, on the other hand, that the lorries running to and from a particular farm would sometimes be laden already, either with produce despatched by other users of the same service or with goods intended for delivery to other consignees, that the lorries thus loaded would necessarily be heavy, that the average farm road would be incapable of bearing the traffic, and that in such a case capital expenditure would be involved in the provision of a depot at the junction of the farm road with the public highway. In this event separate loadings and unloadings would be necessary at the farm and at the road depot respectively and the advantages of a “door to door” service would thus be lost. It has been pointed out that this difficulty might be met by strengthening the farm road sufficiently to bear the motor traffic. It is obvious that all these points would have to be considered in detail before a decision could be reached in any particular case.

It is also to be borne in mind that the agriculturist usually possesses a certain number of horses and carts, as a part of the normal equipment of his farm, and that a road motor service would probably not enable him to dispense with all of these. It is even conceivable that, in some instances, he might be unable to dispense with any. Where a considerable number had to be retained for the purposes of the farm and could readily be spared on occasion for the transport of produce, etc., to and from the nearest market or between the farm and a light railway station, it might be more convenient to utilise them in this way than to take advantage of a road transport service. The precise circumstances of the case would determine the farmer's decision, and in this connection he would no doubt take into account the fact that the use of his own carts between farm and market or between farm and railway station would involve the withdrawal of certain employees from their ordinary duties and that, as they could not be superintended when absent from the farm, the time occupied on the journeys to and from the station or the market would frequently be out of all proportion to the distances to be traversed.

77. It should not be overlooked that it may be possible by means of a light railway to afford a direct service to farms and factories. On Continental light railways, sidings are commonly thrown off to farms and factories and in certain districts in the United Kingdom similar direct services are afforded, with valuable results.

78. Where it is proposed to provide transport facilities in a district where neither road nor railway already exists much will depend, *inter alia*, upon the probable cost of constructing and maintaining the one or the other. As a general rule the advantage in this respect will be found to lie with the road, but there are certain districts, as for example in the Scottish Highlands, where the cost of constructing a road suitable for motor traffic may approximate to that of constructing a light railway of narrow gauge.

Where a road already exists but is not capable of carrying a heavy motor traffic the comparison of cost must lie between that of reconditioning the existing highway so as to render it suitable for the new traffic and the cost of supplementing it, as it stands, by a light railway. In either case the many other factors to which we have referred must also be considered, and a decision will depend to a great extent upon the policy which the State may have adopted with regard to the imposition of added obligations upon road transport agencies in respect of road construction and repairs. Wherever it may be necessary to decide whether the needs of a particular locality should be met by means of road transport or by the construction of a light railway, it will be vitally important to make a careful estimate, in respect of each service, of the amount of the traffic earnings which must be realised in order to secure a reasonable return upon the amount of capital involved.

79. In cases, where, if a light railway were constructed, it would make connection with a main line, the relative advantages of a road motor service would depend to a great extent upon the gauge to be selected for the railway. If a break of gauge were necessary, allowance for the cost of transhipment to and from the main line would have to be taken into account and, in this connection, the length of the lead of the proposed light railway would have to be considered in conjunction with the fact that farmers and others located within easy distance of the main line might find it more convenient and economical to cart their goods direct to the junction than to convey them to the nearest light railway station.

80. The considerations to which we have drawn attention in the foregoing paragraphs apply, in the main, to freight traffic, but some of them are obviously relevant to passenger traffic also.

In the case of a passenger service, however, there are certain other factors to consider. Motor omnibus services may be utilised, in certain circumstances, for journeys of considerable length. They are indeed being so utilised at the present time. For ordinary passenger services the advantages of the motor omnibus appeal most strongly to the short distance traveller. So long as light railways are practically debarred from using the roads the motor omnibus must continue to possess a great advantage, in so far as it can pick up passengers in the streets of towns and villages and at numerous points along the route which it traverses; and, as the omnibus is a much smaller unit than a train, it can usually be run at more frequent intervals. These considerations must obviously be borne in mind in any case where it is necessary to choose between a light railway and a road motor service and where the undertaking selected must depend upon passenger traffic for an appreciable portion of its total revenue.

81. Finally, in any comparison of the two forms of transit the cost of operation must be carefully examined. In the case of a light railway service the charges in respect of labour, fuel, material, stores, depreciation, etc., can be more or less accurately estimated. We doubt whether similar exactitude is yet possible in the case of a projected road motor service. It has been suggested to us that road transport agencies at the present time are inclined to over-estimate the life of their vehicles, or, in other words, to under-estimate the amount of wear and tear to which they are subjected, and that the prosperity which some of these concerns appear now to enjoy is to this extent fictitious. We cannot say to what extent precisely this is true; but it is certain that in the ordinary course road motor vehicles are not only subject to greater wear and tear than railway vehicles, but also become obsolete much more rapidly, and that in framing any estimate of the comparative costs of light railway and road transport the allowance made for depreciation of lorry and omnibus stock should be correspondingly liberal.

There is, on the other hand, the further consideration that, in the event of a road motor service failing and having to be abandoned, the loss of capital involved is negligible, whereas in the case of a similar failure and abandonment of a light railway undertaking the capital loss is serious.

82. We have endeavoured in the preceding paragraphs to indicate in general terms the nature and complexity of the factors which must be taken into account in any attempt to assess the comparative economic values of road motor transport and light railway services respectively. We are satisfied that, except in an individual case and in a particular set of circumstances, no accurate comparison is possible. *We are of opinion that every case must be considered on its merits, with due regard to all the relevant factors, and that any attempt to direct future development in accordance with a general verdict favourable to either form of transport would be highly misleading. We think that the only prudent policy must consist in a frank recognition of the fact that the establishment of a road motor service may sometimes offer a suitable and desirable alternative to light railway construction and in a determination to ensure that no light railway shall be authorised in any case where it is clear that a road motor service would serve the purpose equally well and is likely to be established within a reasonable time.*

In this connection the following extract from a communication which the Committee have received from the Light Railway Commissioners is of particular interest:—

“The Commissioners have emphasised in their Reports to Parliament and elsewhere their conviction that the subject of local transport, whether by road or by rail or by both, should be looked at and dealt with as a whole; and that this question will ultimately resolve itself into one of methods of co-operation, rather than of means of competition, largely depending in various districts upon the local circumstances.”

We are in complete agreement with these views and strongly recommend that future policy should aim at a solution of the problem by way of co-ordination and co-operation, rather than of competition, between light railway enterprise and road motor transport respectively.

CONCLUSION.

83. In concluding our Report we should add that one of the broad results of our enquiry has been to confirm our impression that a new and different conception of the character and functions of a light railway is both desirable and necessary. We are convinced that existing notions with regard to the construction and operation of light railways generally are based upon experience originally gained in the construction and working of the great main lines and that main line traditions have governed and hampered the economic development of the small undertakings.

Light railways, in our opinion, should be regarded from quite a different angle. We think that, instead of endeavouring to maintain standards of speed and service somewhat akin to those adopted by main line undertakings, it should be recognised by all concerned that light railways are in an essentially different category and must depend for their success upon emancipation from main line conceptions of construction and operation. We are satisfied that a lower standard of speed is a first essential and that, with the adoption of such a standard, the necessity for elaborate methods of construction and working would largely disappear, with the result that the economic position of the light railway industry could be radically improved, and that without any serious sacrifice of efficiency.

84. The Committee desire, in conclusion, to express their recognition and grateful appreciation of the great assistance they have received from their Secretary, Mr. J. R. Deans. The wide range of the terms of reference has necessitated more than ordinary diligence and care, and much credit is due to Mr. Deans for the able manner in which he has carried out his duties.

We are, Sir,

Your obedient Servants,

ALEXANDER GIBB (*Chairman*).

W. M. ACWORTH.

JOHN A. F. ASPINALL.

V. M. BARRINGTON-WARD.

C. E. DREWETT.

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J. W. PRINGLE.

H. F. STEPHENS.

J. R. DEANS (*Secretary*).

26th July, 1921.
